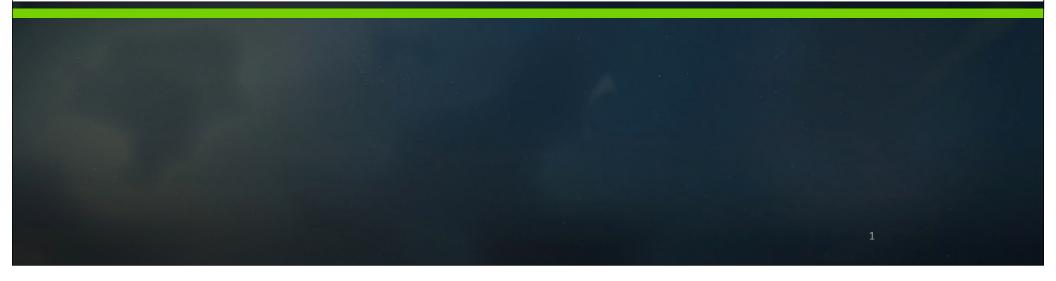


BOXEE Basic Tier Encryption Meetings March 15, 2012



Meet BOXEE

- » Founded in 2007
- » Corporate headquarters in New York
- » ~ 2 million users worldwide
- » 45 employees and growing
- » Raised \$28.5 million:

Pitango, Softbank, General Catalyst, Spark Capital and Union Square Ventures

Meet BOXEE

Boxee's mission is to be an alternative to traditional pay TV.

Boxee combines programming from broadcast channels (available over the air or on unencrypted basic cable) and over-the-top Internet content, all in a seamlessly integrated, user-friendly interface with innovative social features. Loads of entertainment without paying \$75 per month.

Meet BOXEE



"Boxee just reinvented the box. The Boxee Box is no longer just a media streamer, thanks to the just-released Boxee Live TV. The little USB ATSC tuner integrates OTA HDTV and basic cable seamlessly into the Boxee Box's menu system, and I found it's as wonderful as it sounds. The little box is now the cord cutter's best friend (if it wasn't already)... Boxee Live TV is as easy as the rest of the media stream. The Boxee Box was already the best device to rid oneself from the chains of subscription TV. Now it's just that much better."

<u>Full Circle: Boxee Brings OTA HDTV And Basic Cable To The Boxee Box (January 12, 2012)</u>



DEMO

Overview: Shortcomings of the Proposed Rule

Encryption as proposed in the NPRM will:

- » Cause existing products consumers rely on to stop working, force millions of users to rent set-top boxes
- » Harm start-ups trying to innovate in the space, prevent competitiveness in the market place
- » Benefit cable operators at the expense of consumers and startups
- » Reduce cable incentive to adopt open networking standards

Overview: Addressing the Shortcomings

The Commission should require cable providers wanting to encrypt the basic tier to make those (broadcast) channels available through comparable means. At a minimum:

- » No additional hardware rental costs to consumers
- » No certification of non-cable devices by cable operators or associations thereof, any certification should be done by an independent body
- » Certification at no or low cost to device makers

Zero Consumer Benefits of Encryption

X Environmental Benefits

- » If truck rolls are reduced, set-top boxes will need to get to consumers either by shipping or consumer pick-up. Either way, vehicles will still be on the road.
- » Encryption will increase total set-top boxes in market, and consequently, energy usage.

X Consumer Convenience

- » Install appointments are not the result of Clear QAM. All major cable operators already offer self-install options, despite unencrypted basic tier.
- » Manual cable connects usually happen at a box outside the consumer's home. Operators could do this without requiring the user to be home, but choose not to.

Zero Consumer Benefits of Encryption

New and Better Services

- » Freed bandwith, faster Internet connections, additional HD channels, more VOD options, and IP services are all benefits of digital service, not of encryption.
- » Digital service necessarily precedes encryption. Cable's argument that encryption is needed to incentivize the digital transition underscores that this rulemaking is not driven by a desire to benefit consumers.

Security

» Cable operators could already be preventing broadband-only customers from being able to receive Clear QAM by using RF filters, but they aren't. They would prefer to have the loophole closed at consumers' expense, not theirs.

These are all benefits to CABLE, not CONSUMERS. And all can be achieved through other means.

Millions of consumers may see their TVs go dark

Households that can not afford renting additional boxes

Consumers who rely on Clear QAM in bedrooms, dens, etc. will see their cable bills increase by \$5-\$15 per month as they will be required to rent additional STBs

Consumers relying on computer tuners and other QAM devices

Consumers relying on tuners and other devices from Hauppauge, Elgato, HDHomeRun, Simple.tv and others to stream TV to computers and tablets

Low Income and Cost Cutting Households

Consumers choosing to lower cable bills by subscribing to basic tier without STBs

Consumers without Over-the-Air Antenna Reception

Consumers lacking OTA reception (30-40% of ATSC/QAM device users now connect via QAM) will have no access to broadcast channels without a rented STB

Elimination of an affordable competitive alternative

Boxee Live TV represents a new breed of alternative to cable. The combination of broadcast channels with the best of over-the-top services provides a superior user experience for a lower monthly bill.

By eliminating Clear QAM users will have to rely on antennas that in many cases are not a viable option due to reception issues.

Users looking for an alternative to cable TV and an option for lowering their monthly bill will be missing out on a great competitive option.

Every TV will need a STB to receive basic tier cable

- » No longer an option to connect a TV directly to cable without buying or renting any STB device. To many consumers, the cost of renting STBs for every TV will be significant.
- » Users with little or no antenna reception will have no way to access any programming without renting STBs.
- » MVPD-provided STBs don't offer consumer choice and must be rented from providers
- » Cost and frustration of Clear QAM products suddenly rendered obsolete
- » Increased energy bills from additional STBs in home

CableCARD devices sell at higher prices than ATSC/Clear QAM devices, require rental of CableCARDs, and on average require more than one truck roll to install.

CableCARD is an interim solution, burdened by the limitations innate to hardware-based standards and having a limited lifespan as MVPDs move to IP delivery.

Start-ups focus on (and invest their limited capital in) the future of technological innovation, and software-based standards provide the most exciting opportunities for integrating MVPD content and services into the livingroom like never before.

Balancing Costs and Benefits

Under the proposed rule, the benefits accrue to cable operators, while the costs are borne by consumers and innovative start-ups. This is unfair and avoidable.

- » Cable operators argue that encryption is needed to prevent broadband-only customers from accessing the basic tier. Commercially available RF filters can prevent such access. Yet some cable systems have been all-digital for years, and to date they have not invested in RF filters. Consumers should not be forced to foot the bill to address a cable system loophole that cable operators refuse to spend their own money solving.
- » Encryption as proposed would take away the last open field on which start-ups can compete with cable operators, forcing consumers to pay operators even more for the broadcast channels. Government action that strengthens government-granted monopoly cannot be considered deregulatory.

Conclusion: A Balanced Solution

A fair solution: Encrypting cable providers must provide an alternative means of accessing the broadcast channels that ensures the following:

- » No additional hardware rental costs to consumers
- » No certification of non-cable devices by cable operators or associations thereof, any certification should be done by an independent body
- » Certification at no or low cost to device makers

Conclusion: A Balanced Solution

Adequate relief could be achieved by requiring:

- » Direct IP delivery of the basic tier channels
- » Hardware-free methods for device makers to decrypt signals
- » Partial relief could come from mandatory compliance with DLNA-based networking standards (not a hardware-free solution)

Above options permit encryption, mitigate harms to consumers and innovators, and further the FCC's mission and the goals stated in Section 4.2 of the National Broadband Plan.

16